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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT PAPER NUMBER

2111

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,341

Applicant(s)

KOROWITZ ET AL.

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-11, 14, 16, 19, 21, 22, 25, 27, 28 and 31-34 is/are rejected.
- 7) ☒ Claim(s) 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: amendment filed on June 27, 2005.
2. This application has been examined. Claims 2-35 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-11, 14, 16, 19, 21-22, 25, 27-28, 31-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dorfe et al. (US No 5,204,669) in view of McNutt (US No. 5,802,389).

In regard to claims 2, 27, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function (i.e. function module control) within the control system (see figure 2, col. 5, line 61 through col. 6, line 32); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules 16 (i.e. function modules 1-N) that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller (i.e. function module control) (see figure 2, col. 6, lines 32-63); and at least a third module interfacing to the second module in series or daisy chained (see figure 2, col. 6, line 63 through col. 7, line 34). But Dorfe et al. do not specifically disclose the function module comprising at least the plurality of field devices coupled to the function module. However McNutt discloses the expansion module connected in series to each other and each expansion module comprising a

plurality of field devices 42, 44 (see figure 2, col. 6, lines 44-67). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of McNutt within the system of Dorfe et al. because it would provide user an easy-changeable communication ports.

In regard to claims 3, 16, 21, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function (i.e. function module control) within the control system (see figure 2, col. 5, line 61 through col. 6, line 32); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules 16 (i.e. function modules 1-N) that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller (i.e. function module control) (see figure 2, col. 6, lines 32-63); and at least a third module interfacing to the second module in series or daisy chained (see figure 2, col. 6, line 63 through col. 7, line 34). But Dorfe et al. do not specifically disclose the function module comprising at least the plurality of field devices coupled to the function module. However McNutt discloses the expansion module connected in series to each other and each expansion module comprising a plurality of field devices 42, 44 (see figure 2, col. 6, lines 44-67). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of McNutt within the system of Dorfe et al. because it would provide user an easy-changeable communication ports.

In regard to claims 4, 8, 19, 25, 31-32, Dorfe et al. disclose the claimed subject matter as discussed above except the teaching of a support member that is adapted to mount to any of a wall and a DIN rail, at least one module being

mechanically coupled to the support member. However McNutt discloses expansion module including a support member that is adapted to mount to any of a wall and a DIN rail, at least one module being mechanically coupled to the support member (see figure 1, col. 6, lines 30-42). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of McNutt within the system of Dorfe et al. because it would provide user an easy-changeable communication ports.

In regard to claims 5, 9, even though the teachings of Dorfe et al. or McNutt do not specifically disclose wherein the field device is a sensor, however one skilled in the art would have understood that they can choose to have a sensor to provide interchangeable functions for expansion system.

In regard to claims 6, 10, Dorfe et al. disclose wherein the bus is a multidrop bus (see col. 5, lines 30-60).

In regard to claim 7, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function within the control system (see figure 1, col. 5, line 30-60); a plurality of field devices 16, at least one of the field device providing a second control function within the control system (see figure 1, col. 5, line 30 through col. 6, line 14); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller, at least the second module interfacing one or more of the field devices, and at least a third module interfacing to the field device that provide the second control function (see figure 1, col. 5, line 30 through col. 6, line 53); the first control device being configure to control the second control device (see figure 1, col. 5, line 30 through col. 6, line 53).

In regard to claim 11, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function (i.e. function module control) within the control system (see figure 2, col. 5, line 61 through col. 6, line 32); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules 16 (i.e. function modules 1-N) that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller (i.e. function module control) (see figure 2, col. 6, lines 32-63); and at least a third module interfacing to the second module in series or daisy chained (see figure 2, col. 6, line 63 through col. 7, line 34). Dorfe et al. furthermore disclose wherein the computing device downloading (i.e. transmitting) the software application to the control function (see col. 9, lines 4-44). Dorfe et al. furthermore disclose the computing device communicating with the plurality of function module via a network (see figure 2, 6, line 53 through col. 7, line 34). But Dorfe et al. do not specifically disclose the function module comprising at least the plurality of field devices coupled to the function module. However McNutt discloses the expansion module connected in series to each other and each expansion module comprising a plurality of field devices 42, 44 (see figure 2, col. 6, lines 44-67). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of McNutt within the system of Dorfe et al. because it would provide user an easy-changeable communication ports.

In regard to claim 14, Dorfe et al. disclose the second function module executing the program for process control (see col. 9, lines 23-45).

In regard to claims 22, 28, Dorfe et al. disclose the function module control (i.e. interface logic) (see figure 2).

In regard to claim 33, Dorfe et al. disclose the second function module controlling the third function module (see col. 9, lines 23-45).

In regard to claim 34, Dorfe et al. disclose the second function module controlling further modules (see col. 7, lines 7-53).

Allowable Subject Matter

5. Claims 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

6. Applicant's amendment and arguments, see pages 3-16, filed on June 27, 2005, with respect to the rejections of claims 1-2, 4-10 under 35USC 102/103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dorfe et al. and McNutt.

Conclusion

7. Claims 2-11, 14, 16, 19, 21-22, 25, 27-28, 31-34 are rejected. Claims 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35 are objected.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive

information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



PAUL R. MYERS
PRIMARY EXAMINER



Raymond Phan
September 15, 2005